

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-28. (Cancelled)

29. (New) A pTV2 or pCK plasmid construct comprising a nucleotide sequence encoding a C-terminally truncated human Her-2/neu protein consisting essentially of the entire extracellular domain and transmembrane domain of Her-2/neu, or the entire extracellular domain of Her-2/neu.

30. (New) The plasmid construct of claim 29, wherein said truncated Her-2/neu protein consists essentially of the signal peptide, extracellular domain and transmembrane domain encoded by SEQ ID NO: 2.

31. (New, Withdrawn) The plasmid construct of claim 29, wherein said truncated Her-2/neu protein consists essentially of the signal peptide and extracellular domain encoded by SEQ ID NO: 3.

32. (New) The plasmid construct of claim 29, wherein said nucleotide sequence encoding a truncated human Her-2/neu protein comprises SEQ ID NO: 2.

33. (New) The plasmid construct of claim 29, wherein said pTV2 plasmid construct is pNeu_{TM} deposited at the Korean Culture Center of Microorganisms (KCCM) under the

accession number KCCM-10393 and wherein said pCK plasmid construct is pCK_{TM} deposited at the KCCM under the accession number KCCM-10396.

34. (New) The plasmid construct of claim 29, which further comprises a nucleotide sequence encoding a cytokine.

35. (New) The plasmid construct of claim 34, wherein said cytokine is granulocyte-macrophage colony-stimulating factor (GM-CSF).

36. (New) The plasmid construct of claim 34, wherein the nucleotide sequence encoding said truncated human Her-2/neu protein and the nucleotide sequence encoding said cytokine are situated as a bicistronic construct, separated by an internal ribosomal entry site (IRES).

37. (New) The plasmid construct of claim 36, which comprises pCK_{TM}-GMCSF.

38. (New) A pharmaceutical composition comprising the plasmid construct of claim 29, and a carrier.

39. (New) A pharmaceutical composition comprising the plasmid construct of claim 30, and a carrier.

40. (New) A pharmaceutical composition comprising the plasmid construct of claim 31, and a carrier.

41. (New) A pharmaceutical composition comprising the plasmid construct of claim 32, and a carrier.

42. (New) The pharmaceutical composition of claim 38, which further comprises a nucleotide sequence encoding a cytokine.

43. (New) The pharmaceutical composition of claim 42, wherein said cytokine is GM-CSF.

44. (New) The pharmaceutical composition of claim 42, wherein said nucleotide sequence encoding a truncated Her-2/neu protein and said nucleotide sequence encoding a cytokine are on separate plasmids.

45. (New) The pharmaceutical composition of claim 42, wherein said nucleotide sequence encoding a truncated Her-2/neu protein and said nucleotide sequence encoding a cytokine are on the same plasmid.

46. (New) The pharmaceutical composition of claim 43, wherein said pCK plasmid construct is pCK_{TM}-GMCSF.

47. (New) A method for preventing or treating cancer comprising administering an effective amount of the pharmaceutical composition of claim 38 to a mammal in need of prevention or treatment of a Her-2/neu-over-expressing human cancer.

48. (New) The method of claim 47, wherein said cancer is breast cancer or ovary cancer.

49. (New) A method of inducing antitumor immunity comprising intramuscular administration of an effective amount of the pharmaceutical composition of claim 38 to a human subject suffering from a Her-2/neu-over-expressing human cancer.

50. (New) The method of claim 49, wherein said immunity is exhibited by Her-2/neu-specific antibody or CTL response to Her-2/neu.

51. (New) The method of claim 49, wherein said cancer is breast cancer or ovary cancer.

52. (New) A method of reducing tumor growth comprising intramuscular administration of an effective amount of the pharmaceutical composition of claim 38 to a human subject suffering from a Her-2/neu-over-expressing human cancer.

53. (New) The method of claim 52, wherein said tumor is a solid tumor.

54. (New) The method of claim 52, wherein said cancer is breast cancer or ovary cancer.

55. (New) A method of decreasing tumor metastasis comprising intramuscular administration of an effective amount of the pharmaceutical composition of claim 38 to a human subject suffering from a Her-2/neu-over-expressing human cancer.

56. (New) The method of claim 55, wherein said method of decreasing tumor metastasis is applied after surgery to treat or diagnose a Her-2/neu-over-expressing human cancer.

57. (New) The method of claim 55, wherein said tumor is a solid tumor.

58. (New) The method of claim 55, wherein said cancer is breast cancer or ovary cancer.

59. (New) A method of prolonging survival of a human subject suffering from a Her-2/neu-over-expressing human cancer comprising intramuscular administration of an effective amount of the pharmaceutical composition of claim 38 to the human subject.

60. (New) The method of claim 59, wherein said cancer is breast cancer or ovary cancer.